551.506 (261.1) WEATHER OF THE ATLANTIC AND PACIFIC OCEANS

NORTH ATLANTIC OCEAN By F. A. YOUNG

While over the ocean as a whole the number of days on which gales occurred did not differ materially from the normal as shown on the Pilot Chart, there were few days in the month in which heavy weather was not encountered over some part of the northern section of the ocean and the gales were exceptionally severe over the steamer lanes during the latter half. The Icelandic Low was unusually active during the greater part of the month as indicated by the marked negative departures at the three land stations on the British Isles, shown in Table 1.

During the greater part of the first two decades the Azores HIGH was well developed, although on the 1st and 2d an intrusion of low pressure was responsible for a disturbance in that region that will be referred to later.

Table 1.—Averages, departures, and extremes of atmospheric pressure at sea level, 8 a. m. (seventy-fifth meridian), North Atlantic Ocean, November, 1929

Stations	Average pressure	Depar- ture	Highest	Date	Lowest	Date
Julianehaab, Greenland Belle Isle, Newfoundland Halifax, Nova Scotia Nantucket Hatteras Key West New Orleans Cape Gracias, Nicaragua Turks Island Bermuda Horta, Azores Lerwick, Shetland Islands Valencia, Ireland London	Inches 29. 54 29. 78 30. 01 30. 04 30. 12 29. 90 30. 19 29. 44 29. 56 29. 94	Inch (1) 2 -0. 10 3 +0. 08 3 +0. 02 2 -0. 03 3 -0. 03 2 -0. 03 2 +0. 05 3 0. 00 5 +0. 09 5 -0. 26 1 -0. 33 2 -0. 20	Inches 30, 12 30, 50 30, 58 30, 44 30, 38 30, 10 30, 42 29, 90 30, 12 30, 34 30, 60 30, 06 30, 28 30, 46	12th	29, 92 29, 74 29, 46 28, 76	17th. 16th. 28th. 28th. 28th. 18th. 17th. 10th. 26th. 22th. 30th.

* And on other date or dates

The number of days with fog was apparently considerably below normal over the greater part of the ocean. It was reported on from 6 to 9 days over the Grand Banks, from 4 to 6 days along the American coast north of Hatteras, and from 2 to 3 days in the Gulf of Mexico. Over the steamer lanes between the tenth and fortieth meridians fog did not occur on more than two days in any 5°-square; it was reported on three days off the coast of Spain and Portugal, while the British Isles were comparatively clear.

The first disturbance of any intensity in southern waters occurred on the first and 2d when a well-developed Low was over the region between the Azores and Bermudas, with moderate to strong gales over a limited area

near the center.

From the 4th to 10th heavy weather was the rule over the middle and eastern sections of the steamer lanes, although the storm area varied considerably in extent and intensity from day to day. On the 9th and 10th there was also a disturbance of marked intensity between the Bermudas and Nantucket, and on the latter date northerly winds of force 7 to 10 were reported from the westerly quadrants.

From the 11th to 13th land stations in northern Europe. reported barometric readings well below 29 inches, and on the 11th and 12th strong westerly to northwesterly gales prevailed between the 30th meridian and British

coast.

On the 14th to 16th a storm area covered the region from the 25th meridian to the coast of southern Europe, and on the latter day gales were also encountered in the vicinity of the Azores.

From the 17th to 29th the steamer lanes were swept by one severe disturbance after another, the storm area at times extending from the 10th to 55th meridians.

Charts VIII to XI cover the period from the 24th to 27th, when winds of force 11 and 12 were encountered by a number of vessels, as shown by reports in table.

OCEAN GALES AND STORMS, NOVEMBER, 1929

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Vessel	Voyage		Position at time of lowest barometer		Gale	Time of	Gale	Low-	Direc- tion of wind	Direction and force of wind	Direction of wind	Highest force of	Shifts of wind near time of
	From-	То—	Latitude	Longitude	began	lowest barometer	ended	ba- rom- eter	when gale began	at time of lowest barometer	when gale ended	wind and direction	lowest barometer
North Atlantic Ocean—Yuri Maru, Jap. S. S. Bird City, Am. S. S. Bird City, Am. S. S. Oranian, Br. S. S. Sagaporack, Am. S. S. Sagaporack, Am. S. S. Dordrecht, Du. S. S. Benir Jasper, Belg. S. S. Loriga, Br. M. S. Stuttgart, Ger. S. S. Norwegian, Br. S. S. Bellifiower, Am. S. S. Milwaukee, Ger. S. S. Coaxet, Am. S. S. Quaker City, Am. S. S. Sarcoxie, Am. S. S. Sarcoxie, Am. S. S. Quaker City, Am. S. S. Sundance, Am. S. S. Antinous, Am. S. S. Antinous, Am. S. S. Naples Maru, Jap. S. S.	Oran Copenhagen Liverpool Norway Casablanca Helsingfors Manchester Antwerp London New York Liverpool. Cork B is h o p 's Rocks Houston Dundee Savannah Mobile Hamburg	Boston Bathimore Barbados Portland, Me. New York do. New Orleans New York Canal Zone Bremerhaven Boston New York Liverpool Philadelphia Bremen New York Philadelphia Liverpool Bremen New York	9 / N. 39 45 N. 55 45 N. 59 06 N. 33 00 N. 49 10 N. 55 12 0N N. 50 30 N. 44 10 N. 50 38 N. 41 10 N. 50 38 N. 41 10 N. 50 38 N. 41 10 N. 41	45 30 W. 30 10 W. 30 10 W. 10 10 W. 41 00 W. 41 00 W. 18 30 W. 6 28 W. 25 25 W. 42 25 W. 23 09 W. 13 50 W. 26 01 W. 24 25 W. 25 30 W. 65 22 W. 45 00 W. 43 08 W. 48 07 W.	Oct. 31. 31. Nov. 3. 7. 9. 10. 11. 14. 15. 16. 17. 18. 21. 22. 21. 26. 26. 26.	2 p., 1 8 p., 3 8 p., 7 10 a., 9 Noon, 10. 2 a., 15 -, 15 9 a., 16 3 a., 17 Noon, 17. 11 a., 18.	18	29. 71 29. 86 28. 74 29. 61 29. 31 29. 77 29. 59 28. 78 29. 15 28. 93 29. 07 29. 39 29. 14 28. 86	NE W SE SW N S. SSE SW N SSE NW NE NW W W W W W W W W W W W W W W W	NE. 8 WSW., 8 S., 8 7. 10 WSW., 9 WSW., 11 SSE SSW WNW, 11 NW., 9 WNW, 11 WNW, 9 SE., 7 WNW, 11 WNW, 11 WNW, 9 YNW, 9	NNE War Var NN NN WSW NNW NW	NE., 9	Steady. SESSSW. WSWWNW. NWNNNE. Steady. WSWWNW. SWW. Steady. Do. SWWNW. SSWWNW. SSWWSW. WNWNW. SSWWSW.
North Pacific Ocean—													
Taiyo Maru, Jap. S. S California, Am. S. S Chlef Capilano, Br. S. S. City of Victoria, Can. S. S. Kurohime Maru, Jap. S. S. Do Golden Hind, Am. S. S. California, Am. S. S.	Everettdo Hong Kong Otaru	San Pedro Yokohama Kobedo	46 00 N. 49 30 N. 52 20 N. 50 40 N. 48 00 N. 47 29 N. 46 38 N.	165 38 W. 161 00 E. 172 00 W. 168 50 W. 178 00 E. 165 30 E. 179 03 E. 179 00 W. 152 30 W.	2	2 a., 4 5 p., 3 2 a., 4 4 p., 4 6 a., 5 11 p., 8 Noon, 8 5 p., 9 6 a., 11	4	28. 89 29. 36 29. 25 29. 52 29. 52 29. 82	NNE WSW SE W W SSE SSE	8SW., 4 W., 9 SSW., 9 W., 8 W., 8 S., 9 SSW., 8 SSW., 8	SW NW SW WSW W SW	N., 8	Steady. WSWWNW. SSSWWSW. SSSWWSW.

¹ No normal available.
2 From normals shown on Hydrographic Office Pilot Chart, based on observations at Greenwich mean noon, or 7 s. m., seventy-fifth meridian time.
3 From normals based on 8 a. m. observations.